## State of Montana Board of Investments 1977-1978 Fiscal Year Report

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# State of Montana <br> Department of Administration <br> Board of Investments <br> Thomas L. Judge, Governor 

Members of the Board<br>Dean H. Albert, Chairman<br>Vice President<br>Bancorporation of Montana<br>Great Falls<br>Patricia P. Douglas, Ph.D.<br>University of Montana<br>Missoula<br>John A. Hauf<br>Attorney at Law<br>Billings<br>Jay Lalonde<br>President<br>Richland National Bank<br>Sidney<br>John S. MacMillan<br>Senior Vice President<br>First Federal Savings<br>and Loan<br>Kalispell<br>INVESTMENT OFFICER<br>James R. Howeth<br>ASSISTANT<br>INVESTMENT OFFICER<br>David J. Brown

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## INTRODUCTION

The Board of Investments completed its seventh year of operations as of June 30, 1978. During the seven years, the Board has accomplished several objectives. Among them are:

1. The centralization of all state investments-Bringing all investments under the Board's control has made the investment process more efficient and reduced the expense of managing state investments. Further, the investment records are audited annually and performance records are compared to national norms, thus making the whole process more open and accountable to Montanans. Management expenses have been reduced by eliminating duplicative efforts and consequently, management costs approximate only 0.04 percent of total investments.
2. The substantial increase in investment income-Annual investment income has grown from below $\$ 20$ million to over $\$ 54$ million during the seven years. This growth traces largely to a substantial reduction in non-interest bearing demand deposits and to an active bond-swapping program.
3. The increased emphasis on intra-state investment-The primary vehicles for intra-state investment are Montana certificates of deposit and Montana mortgages. Over the past two years, the amount invested in Montana certificates of deposit has grown from $\$ 44.9$ million to $\$ 71.2$ million. Over the same period, Montana mortgages have increased from $\$ 42.3$ million to $\$ 57.9$ million. The growth rates for both these intra-state investments exceeds the growth of total invested funds and reflects the Board's commitment to these important investments.
4. The broadening of the investment division to include the Short-Term Investment Pool and a Common Stock program-Both the Short-Term Investment Pool (STIP) and the Common Stock program have been in existence for five years. STIP has provided a short-term investment option to local governments, universities, and state agencies. It has enhanced fiscal cash management by providing liquidity and an attractive return. The Common Stock program has provided further investment diversification of retirement funds. Over the five year period, the common stock portfolio has resulted in outstanding yields relative to the national norms.

Future objectives of the Board include the establishment of a common stock pool that will allow the smaller retirement funds to participate in a common stock program. Moneymax, a computerized short-term investment system, will be installed in 1978. This system will provide portfolio accounting, and cash flow and investment analysis.

## TOTAL INVESTMENT INCOME



SOURCE OF INVESTMENTS
FISCAL 77/78

* Stated at Cost See Schedule A


## OPERATIONS

## Market Behavior

The dominant characteristic of capital markets during Fiscal 1978 was the increase in interest rates and the decline in common stock prices. As is illustrated on page 5, short-term interest rates increased sharply during the year while long-term interest rates rose moderately. Average rates on bankers' acceptances, for example, increased by 31 percent to 6.64 percent from the 5.05 percent average for the previous fiscal year. Average rates on commercial paper, another short-term instrument, rose to 6.60 percent, a 28 percent increase over the 5.14 percent in Fiscal 1977. Average rates on long-term AAA corporate bonds increased one percent from 8.17 percent to 8.29 percent. Common stock prices declined during the year as evidenced by the decline of 11 and 5 percent respectively in the Dow-Jones Industrials and the Standard and Poor's 500 indices.

The increase in short-term rates was much more pronounced than it was in long-term rates. Consequently, portfolios such as the Treasurer's Fund and the Short-Term Investment Pool, with a larger portion of short-term holdings, were most advantageously affected by this market occurrence.

## Board Performance

In Fiscal 1978, the Board managed 32 major funds including the Short-Term Investment Pool which has 96 state and local participants.

Total investments, stated at cost, increased 12 percent over the previous fiscal year-end to a record $\$ 798.1$ million. Total investment income reached a record $\$ 54.3$ million; 15 percent over Fiscal 1977.

The average portfolio yield on all funds was 7.47 percent compared to 7.33 percent in Fiscal 1977. The higher yield traces to the higher levels of interest rates mentioned previously. The overall portfolio yield increased by 2 percent compared to a l percent increase in long-term interest rates and over 28 percent in short-term interest rates. Said differently, the average portfolio yield increased more than long-term market rates but less than short-term market rates. These results were expected as a greater portion of the funds are invested in long-term as opposed to short-term instruments.

Fiscal 1978 marked the second year that the Board used the continuous bond performance system to compliment the common stock performance measurement system. Both systems compare Montana's investment performance to other portfolios throughout the country and to relevant market indices. Generally, five years is considered to be a representative time period for analyzing performance, so only limited conclusions can be drawn from one-year comparisons.

The actual common stock and bond performance statistics are presented in detail on page 15 . For three years, Montana's common stock investment performance has been superior to over 75 percent of the more than 3000 pro-fessionally-managed common stock programs examined in a national survey as well as the popular stock market indices. For two years, Montana's bond investment performance has been superior to over 50 percent of the more than 3000 professionally-managed bond programs surveyed as well as one of the two popular bond market indices. For Fiscal 1978, Montana's common stock portfolio outperformed more than 50 percent of all money managers surveyed as well as the popular stock market averages. Montana's Fiscal 1978 bond performance was superior to the Salomon Brothers Bond Index, but was below the performance of over 50 percent of all bond programs surveyed.

On a time weighted basis, Montana's annual rate of return for common stocks during the last three fiscal periods has been 8.60 percent; during the last two fiscal periods the bond yield has been 7.10 percent. In contrast, the stocks included in the Standard and Poor's 500 Stock Index yielded 4.70 percent and the Salomon Brothers Bond Index showed a yield of 6.90 percent. Further, the survey referred to earlier revealed that 75 percent of the common stock managers reported rates of return of less than 5.70 percent and 50 percent of the bond managers reported rates of return of less than 7.00 percent.

During Fiscal 1978, Montana's common stocks registered a 3.30 percent rate of return; Montana's bond portfolio yielded a -0.30 percent. This compares to 0.10 percent and -0.80 percent for the Standard and Poor's 500 Stock Index and the Salomon Brothers Bond Index respectively. In addition, 50 percent of all programs surveyed showed yields below 2.30 percent for stocks and 1.50 percent for bonds.

## Board Activity

Security transactions totalled $\$ 11$ billion during Fiscal 1978. This is considerably above the 1977 fiscal period total of $\$ 9.6$ billion. The number of security transactions totalled 2,780 which is slightly below the previous year's 2,809 . Short-term activity accounted for 99 percent of the dollar volume with the majority of this activity involving moneymarket instruments.

In compliance with statutory requirements, the investment records have been audited annually since the Board's inception. The audit for Fiscal 1978 has been completed.

## TOTAL INVESTMENTS AT COST




Source: U.S. Dept. of Commerce, Survey of Current Business, July 1976 to July 1978.

## SUMMARY OF SECURITY TRANSACTIONS <br> FISCAL YEAR 1977-1978

## SHORT-TERM

PAR VALUE
COST/PROCEEDS

## PURCHASES:

Bankers' Acceptances
Certificates of Deposit Commercial Paper
Government Securities
Repurchase Agreements TOTAL

## SALES:

Short-Term
TOTAL SHORT.TERM TRANSACTIONS

## LONG-TERM

PURCHASES:
Common Stock-Shares 219,938
Corporate Bonds
Government Securities
Mortgages

Mortgages
TOTAL

## SALES:

Common Stock-Shares $\mathbf{3 3 , 0 2 2}$
Corporate Bonds
Government Securities
TOTAL
TOTAL LONG.TERM TRANSACTIONS
TOTAL TRANSACTIONS

61,918,469
36,500,000

| $\$ 177,163,901$ |
| ---: |
| $45,800,000$ |
| $130,400,000$ |
| $345,280,000$ |
| $10,010,272,610$ |
| $\$ 10,708,916,511$ |

$\$ \quad 197,925,000$
$\$ 10,906,841,511$
\$ 175,723,950 45,800,000 129,841,402 343,084,631
$10,010,272,610$
$\$ 10,704,722,593$
$\$ 197,476,933$
\$10,902,199,526
\$ 6,045,239
61,502,641
36,436,257
13,513,648
$\$ 112,112,656$
$\$ \quad 117,497,785$
\$ 1,104,351
7,076,306
10,122,224
$\$ \quad 18,302,881$
\$ 135,800,666
$\$ 11,038,000,192$


|  | \％OF CHANGE | AMOUNT |  |
| :---: | :---: | :---: | :---: |
| Public Employees＇Retirement System Fund | 21.5 18.7 | $\$ 13,194,421$ $10,862,271$ |  |
| Teachers＇Retirement System Fund | 17.7 18.0 | $10,712,381$ $9,099,279$ |  |
| Treasurer＇s Fund | 7.6 $(6.7)$ | $\begin{array}{r} 10,647,439 \\ 9,894,208 \end{array}$ |  |
| Trust and Legacy Fund | 14.1 10.6 | $\begin{aligned} & 5,639,278 \\ & 4,942,025 \end{aligned}$ |  |
| Workers＇Compensation Fund | 19.5 33.8 | $4,233,749$ $3,542,689$ |  |
| Other Retirement Funds | ${ }_{33}^{21.7}$ | $1,198,206$ 984,871 | ＂TOTAL INVESTMENT INCOME＊ |
| Resource Indemnity Fund | 46.5 47.6 | 696,050 475,082 | FISCAL 77／78 <br> FISCAL 76／77 |
| Social Security Fund | 23.5 7.0 | 606,068 490,677 | F |
| Long Range Building Fund | $\underset{(9.6)}{(20.3)}$ | 597,611 749,531 | $\because$ |
| Various University Funds | ${ }_{(5.1)}^{(13.3)}$ | 500,073 576,905 | E |
| Educational Trust Fund | 50.1 551.7 | 358,802 239,115 | 晶 |
| Long Range Building Sinking Fund | ${ }_{(4.6)}^{(12.9)}$ | $\begin{array}{r} 218,203 \\ 250,553 \end{array}$ | 晶 |
| Permanent Coal Trust Fund |  | $\begin{array}{r}86,780 \\ -0- \\ \hline\end{array}$ | I |
| Federal Revenue Sharing Funds | ${ }^{(72.5)}$ | 86,697 315,106 | 自 |
| Other Funds | 6.2 90.9 | $\begin{aligned} & 2,288,308 \\ & 2,153,872 \end{aligned}$ |  |
| Other STIP | 20.7 | $\begin{aligned} & 1,508,193 \\ & 1,37+, 348 \end{aligned}$ |  |
| TOTAL | $\begin{aligned} & 14.4 \\ & 15.3 \end{aligned}$ | $\begin{aligned} & \$ 52,572,259 \\ & 845,950,562 \end{aligned}$ | 8 |
| 8 ＊Modified Income |  |  |  |

## TREASURER'S FUND

By year-end, the Treasurer's Fund (surplus treasury cash) was the second largest fund managed by the Board. All receipts are deposited to the treasury, just as all state obligations are paid from this fund; consequently, the invested balance is subject to wide fluctuations and liquidity is a primary objective. Thus, the portfolio is invested predominantly in short-term investments, frequently on an overnight basis

As of June 30, 1978, the invested balance, stated at cost, was $\$ 185.4$ million, 8 percent above the Fiscal 1977 yearend figure. Investment income increased 11 percent to $\$ 10.8$ million. The yield on the portfolio, calculated by dividing yearly income by the average daily invested balance of $\$ 157.4$ million, was 6.88 percent for Fiscal 1978 compared to 6.28 percent for Fiscal 1977.

The increased yield is explained by what happened in the short-term money markets. As mentioned previously, short-term rates increased during Fiscal 1978 and the Treasurer's Fund is invested almost entirely in short-term securities.

In the seven years of Board management, investment income of nearly $\$ 57$ million has been earned by the Treasurer's Fund.

## TYPE:

Montana Certificates of Deposit
Repurchase Agreements
U.S. Treasury Obligations

Corporate Obligations
Short-Term Investment Pool
TOTAL INVESTMENTS

ANALYSIS OF INVESTMENTS

| Fiscal | $\mathbf{7 6 / 7 7}$ | Fiscal | 77/78 | \% |
| ---: | ---: | ---: | ---: | ---: |
| COST | $\%$ | COST | $\%$ | CHANGE |
| $\$ 5,450,000$ | 3.2 | $\$ 1,400,000$ | 0.8 | $(74.3)$ |
| $55,180,000$ | 32.0 | $55,700,000$ | 30.0 | 0.9 |
| $-0-$ | $-0-$ | $1,866,440$ | 1.0 | 100.0 |
| $7,961,103$ | 4.6 | $17,020,991$ | 9.2 | 113.8 |
| $103,816,645$ | 60.2 | $\underline{109,436,886}$ | $\frac{59.0}{}$ | $\underline{5.4}$ |
| $\$ 172,407,748$ | $\underline{100.0}$ | $\underline{\$ 185,424,317}$ | $\underline{100.0}$ | 7.5 |

Fiscal 1978 marked the fifth year the Board has managed the Short-Term Investment Pool (STIP). During that year, STIP had 96 participants including 6 university units, 51 local governments, and 39 state accounts.

Participants have benefitted significantly from investments in STIP. Having this investment option has helped reduce idle cash balances, thereby generating more investment income and easing cash flow problems for participants. The State's efforts to aid localities in obtaining the highest possible yield on their short-term investments has certainly been enhanced by STIP.

STIP provides a short-term alternative for participants who have a relatively small amount to invest. Minimum participation is approximately $\$ 1,000$ and any Montana city, county, school district, or political subdivision may invest in it. STIP provides excellent liquidity while generating an attractive return. It offers an opportunity to improve local cash management because non-interest bearing demand deposit balances can be reduced significantly without impairing liquidity.

The gradual shift in the maturity structure which occurred in Fiscal 1977 continued during Fiscal 1978. Based upon cash flow analysis of previous years, a greater percentage of the pool was shifted from short-term to intermediateterm investments and these longer-term investments commanded higher rates of return. Long-term investments comprise 7 percent of the portfolio; 54 percent is invested in intermediate-term securities; and the remaining 39 percent is invested in short-term instruments.

During Fiscal 1978, the Board of Investments channeled more funds directly into the State's economy by increasing STIP investments in Montana certificates of deposit by 24 percent-from $\$ 56.2$ million in fiscal 1977 to a record $\$ 69.6$ million in Fiscal 1978. As of June 30, 1978 investments in STIP equalled a book value of $\$ 170.7$ million. The Fiscal 1978 average daily invested balance was $\$ 170.6$ million.

For Fiscal 1978, participants inSTIP earned an average return of 7.15 percent compared to the 6.76 percent during Fiscal 1977. This increased yield traces to the general rise in short-term interest rates.

ANALYSIS OF INVESTMENTS

## TYPE:

Montana Certificates of Deposit Repurchase Agreements
U.S. Treasury Obligations

Government Agency Obligations Canadian Obligations Corporate Obligations
TOTAL INVESTMENTS

| Fiscal <br> COST | $\mathbf{7 6 / 7 7}$ | Fiscal <br> COST | $\mathbf{7 7 / 7 8}$ | $\%$ <br> CHANGE |
| ---: | ---: | ---: | ---: | ---: |
| $\$ 56,250,000$ | 34.1 | $\$ 69,600,000$ | 40.8 | 23.7 |
| $28,106,000$ | 17.0 | $8,400,000$ | 4.9 | $(70.1)$ |
| $21,474,688$ | 13.0 | $38,343,448$ | 22.5 | 78.6 |
| $21,748,281$ | 13.0 | $34,128,912$ | 20.0 | 56.9 |
| $6,862,500$ | 4.2 | $5,843,450$ | 3.4 | $(14.8)$ |
| $30,566,267$ | 18.5 | $\frac{14,401,677}{8.4}$ | $\underline{(52.9)}$ |  |
| $\$ 165,007,736$ | $\underline{100.0}$ | $\underline{\$ 170,717,487}$ | $\underline{100.0}$ | 3.5 |

## PUBLIC EMPLOYEES' RETIREMENT SYSTEM FUND

The Public Employees' Retirement System Fund (PERS) became the largest fund under the Board's management during Fiscal 1978. PERS is invested predominantly in long-term instruments. Since liquidity is not a primary objective, short-term investments are held to a minimum. While PERS and the Teachers' Retirement System are the only funds participating in a common stock investment program, over 90 percent of these portfolios are invested in fixed-income obligations.

As of June 30, 1978, the PERS invested balance, stated at book value, reached a record $\$ 186.4$ million, a 16 percent increase over the previous year's $\$ 160.9$ million. Investment income for the year increased 19 percent to $\$ 13.5$ million and the portfolio yield was 8.10 percent compared to the previous year's 7.87 percent. This yield growth was expected as long-term interest rates increased during the year.

Only 7 percent of PERS's portfolio is invested in common stocks; that is well below the 20 percent statutory maximum. The Board's policy has been one of gradual commitment to common stocks from net cash inflows. This precludes the liquidation of any investment for the purpose of purchasing common stock investments.

The common stock and bond performance statistics are presented on page 15 . As mentioned in the introduction, single year comparisons are not too meaningful. Looking at the past 3 years, the PERS common stock portfolio has substantially outperformed well over 75 percent of all professionally managed common-stock portfolios in the A.G. Becker survey as well as both stock market indices. On a time-weighted basis, the annual rate of return for the PERS common stock portfolio over that period was 8.60 percent compared to 4.70 percent for the Standard and Poor's 500 Stock Index and 5.70 percent or less for 75 percent of the common stock portfolios surveyed.

Over the past two fiscal periods, the PERS bond portfolio has outperformed more than 50 percent of the professionally managed bond portfolios in the A.G. Becker survey. On a time-weighted basis, the annual rate of return for the PERS bond portfolio was 7.40 percent compared to 6.90 percent for the Salomon Brothers Bond Index, and 7.00 percent or less for 50 percent of the bond portfolios surveyed.

During Fiscal 1978, PERS's common stock portfolio yielded 3.30 percent versus 0.10 percent for the Standard and Poor's 500 Stock lndex and 2.30 percent or less for 50 percent of all common stock managers surveyed. In the same period, PERS's bond portfolio yielded 0.00 percent. This compares to -0.80 percent for the Salomon Brothers Bond Index and 1.50 percent or less for 50 percent of all bond programs surveyed.

## TYPE:

Montana Obligations
Repurchase Agreements
U.S. Treasury Obligations

Government Agency Obligations
U.S. Govt. Guaranteed Obligations

Canadian Obligations
Corporate Obligations
Convertible Bonds
Common Stock
Montana Mortgages
Land and Building
TOTAL INVESTMENTS

ANALYSIS OF INVESTMENTS

| Fiscal | 76/77 | Fiscal | 77/78 | \% |
| ---: | ---: | ---: | ---: | ---: |
| COST | $\%$ | COST | $\%$ | CHANGE |
| $\$ 1,096,787$ | 0.7 | $\$ 1,008,260$ | 0.5 | $(8.1)$ |
| $-0-$ | $-0-$ | 300,000 | 0.2 | 100.0 |
| 483,613 | 0.3 | 484,337 | 0.3 | 0.1 |
| $2,333,050$ | 1.4 | $2,696,869$ | 1.4 | 15.6 |
| $3,988,733$ | 2.5 | $5,038,981$ | 2.7 | 26.3 |
| $9,930,929$ | 6.2 | $12,378,927$ | 6.6 | 24.7 |
| $107,577,486$ | 66.9 | $121,734,900$ | 65.3 | 13.2 |
| 855,000 | 0.5 | 855,000 | 0.5 | $-0-$ |
| $9,890,827$ | 6.1 | $12,514,942$ | 6.7 | 26.5 |
| $24,547,724$ | 15.3 | $29,229,608$ | 15.7 | 19.1 |
| 151,189 | 0.1 | 146,369 | 0.1 | $(3.2)$ |
| $\$ 160,855,338$ | 100.0 | $\$ 186,388,193$ | $\underline{100.0}$ | 15.9 |

## TEACHERS' RETIREMENT SYSTEM FUND

The Teachers' Retirement System Fund is the third largest fund managed by the Board of Investments. On June 30,1978 , total investments, stated at book value, were $\$ 152.9$ million or 13 percent above the previous fiscal year's $\$ 135.5$ million. Investment income increased 18 percent to $\$ 11.1$ million. The Fiscal 1978 portfolio yield was 8.00 percent compared to 7.68 percent for the prior year. This increase in yield was expected as long-term interest rates rose during the year.

The Teachers' Retirement System and the Public Employees' Retirement System participate equally in the common stock investment program. At present, 8 percent of the fund is invested in common stocks-an amount well below the 20 percent statutory maximum. Board policy has been to gradually build the common stock portfolio from net cash inflow rather than to liquidate existing investments to purchase common stocks.

The common stock and bond performance statistics are presented in detail on page 15 . Over the past three years, the Teachers' Retirement System's common stock portfolio has significantly outperformed over 75 percent of all professionally managed common stock portfolios in the A.G. Becker survey as well as both stock market indices. On a time-weighted basis, the annual rate of return for the stock portfolio over the past three years was 8.60 percent compared to 4.70 percent for the Standard and Poor's 500 Stock Index and 5.70 percent or less for 75 percent of the common stock portfolios surveyed.

Fiscal 1978 was the second year the continuous bond performance measurement system was used by the Board. On a time-weighted basis, the Teachers' Retirement System's bond portfolio had an annual rate of return of 7.30 percent over that two year period. The Salomon Brothers Bond Index showed 6.90 percent and 50 percent of the bond portfolios surveyed yielded 7.00 percent or less.

For Fiscal 1978, the Teachers' Retirement System's common stock portfolio yielded 3.30 percent compared to 0.10 percent for the Standard and Poor's 500 Stock Index and 2.30 percent or less for 50 percent of all common stock managers surveyed. In the same period the Teachers' Retirement System's Bond portfolio showed a 0.60 percent return versus -0.80 percent for the Salomon Brothers Bond Index and 1.50 percent or less for 50 percent of all bond programs surveyed.

## TYPE:

Repurchase Agreements
U.S. Treasury Obligations

Government Agency Obligations
U.S. Govt. Guaranteed Obligations

Canadian Obligations
Corporate Obligations
Convertible Bonds
Common Stock
Montana Mortgages
Land and Building
TOTAL INVESTMENTS

## ANALYSIS OF INVESTMENTS

$\left.\begin{array}{rrrrr}\text { Fiscal } & \text { 76/77 } \\ \text { COST } & \% & & \begin{array}{r}\text { Fiscal } \\ \text { COST }\end{array} & \text { 77/78 } \\ \$ & \text { CHANGE }\end{array}\right)$ CH

The Trust and Legacy Fund is the fourth largest fund managed by the Board of Investments. In Fiscal 1978, the invested balance grew 12 percent to $\$ 87.3$ million. Investment income for the year also increased 12 percent to $\$ 5.9$ million. The portfolio yield for Fiscal 1978 was 7.41 percent compared to 7.28 percent during Fiscal 1977.

Through an active bond swapping program, the Trust and Legacy Fund's investment yield increased substantially over the years-from 4.20 percent during Fiscal 1972 to 7.41 percent during Fiscal 1978.

For the past two fiscal periods, Trust \& Legacy's bond performance, on a time-weighted basis, yielded a 6.50 percent annual rate of return or below the 7.00 percent or less for 50 percent of all bond portfolios in the A.G. Becker survey and the 6.90 percent for the Salomon Brothers Bond Index.

During Fiscal 1978, Trust and Legacy's bond portfolio yielded a -2.50 percent return compared to -0.80 percent for the Salomon Brothers Bond Index and 1.50 percent or less for 50 percent of all bond managers surveyed. The performance statistics are presented on page 15.

## TYPE:

Repurchase Agreements
U.S. Treasury Obligations

Government Agency Obligations
U.S. Govt. Guaranteed Obligations

Canadian Obligations
Corporate Obligations
TOTAL INVESTMENTS

## ANALYSIS OF INVESTMENTS

| $\begin{aligned} & \text { Fiscal } \\ & \text { COST } \end{aligned}$ | $\begin{array}{r} 76 / 77 \\ \% \end{array}$ | $\begin{aligned} & \text { Fiscal } \\ & \text { COST } \end{aligned}$ | $\begin{array}{r} 77 / 78 \\ \% \end{array}$ | CHANGE |
| :---: | :---: | :---: | :---: | :---: |
| \$ 500,000 | 0.7 | \$ 1,826,000 | 2.1 | 265.2 |
| 955,221 | 1.2 | 955,333 | 1.1 | -0- |
| 4,475,350 | 5.7 | 3,787,206 | 4.3 | (15.4) |
| 18,286,464 | 23.4 | 19,104,653 | 21.9 | 4.5 |
| 4,210,889 | 5.4 | 5,716,181 | 6.6 | 35.7 |
| 49,641,173 | 63.6 | 55,901,572 | 64.0 | 12.6 |
| \$78,069,097 | 100.0 | \$87,290,945 | 100.0 | 11.8 |

## WORKERS' COMPENSATION

The Workers' Compensation Fund is derived from the monies of the state-administered industrial accident insurance program.

Total investments, stated at book value, increased 9 percent to $\$ 55.9$ million during Fiscal 1978. Investment income increased 18 percent to $\$ 4.4$ million during the same period. The portfolio yield for Fiscal 1978 was 8.46 percent compared to the previous year's 8.29 percent. This yield increase was expected as long-term interest rates rose during the year.

During the last two fiscal years, the Fund's bond portfolio yielded 7.20 percent annually versus 7.00 percent or less for 50 percent of the bond portfolios included in a national survey and 6.90 percent for the Salomon Brothers Bond Index.

In Fiscal 1978, the Fund's bond portfolio had a time-weighted rate of return of 0.90 percent compared to -0.80 percent for the Salomon Brothers Bond Index and 1.50 percent or less for 50 percent of all bond managers surveyed. The performance statistics are presented on page 15.

## TYPE:

Repurchase Agreements
U.S. Treasury Obligations

Government Agency Obligations
U.S. Govt. Guaranteed Obligations

Canadian Obligations
Corporate Obligations
Montana Mortgages
TOTAL INVESTMENTS
ANALYSIS OF INVESTMENTS

| Fiscal | $\mathbf{7 6 / 7 7}$ | Fiscal | 77/78 | \% |
| ---: | ---: | ---: | ---: | ---: |
| COST | $\%$ | COST | $\%$ | CHANGE |
| $\$ 2,500,000$ | 4.9 | $\$ 000,000$ | 1.1 | $(76.0)$ |
| 483,613 | 0.9 | 484,337 | 0.9 | 0.1 |
| 400,000 | 0.8 | 400,000 | 0.7 | $-0-$ |
| $3,000,000$ | 5.8 | $4,481,000$ | 8.0 | 49.4 |
| $5,788,398$ | 11.3 | $6,278,831$ | 11.2 | 8.5 |
| $38,647,219$ | 75.3 | $43,198,017$ | 77.3 | 11.8 |
| 508,881 | 1.0 | 439,205 | 0.8 | $\underline{(13.7)}$ |
| $\$ 51,328,111$ | $\underline{100.0}$ | $\underline{\$ 55,881,390}$ | $\underline{100.0}$ | 8.9 |

## PERFORMANCE COMPARISONS

## Annualized Time-Weighted Total Rates of Return

| COMMON STOCK: | $\begin{aligned} & 3 \text { Years } \\ & 1976.78 \\ & \hline \end{aligned}$ | Fiscal Year $1976 \%$ | $\begin{gathered} \text { Fiscal } \\ \text { Year } \\ 1977 \% \\ \hline \end{gathered}$ | $\begin{gathered} \text { Fiscal } \\ \text { Year } \\ 1978 \% \\ \hline \end{gathered}$ | From Inception <br> $8 / 31 / 73$ to <br> $6 / 30 / 78 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Montana | 8.60 | 19.08 | 4.00 | 3.30 | 6.18 |
| A.G. Becker lst Quartile* | 5.70 | 11.57 | 2.30 | 4.90 | N.A. |
| A.G. Becker Median | 3.10 | 8.07 | -2.60 | 2.30 | N.A. |
| S \& P 500 | 4.70 | 14.03 | 0.60 | 0.10 | 2.63 |
| Dow Jones Industrial Average | 2.50 | 19.04 | -4.40 | -5.40 | 3.24 |
| BONDS: | $\begin{aligned} & 2 \text { Years } \\ & 1977.78 \\ & \hline \end{aligned}$ |  | $\begin{gathered} \text { Fiscal } \\ \text { Year } \\ 1977 \% \\ \hline \end{gathered}$ | $\begin{gathered} \text { Fiscal } \\ \text { Year } \\ 1978 \% \\ \hline \end{gathered}$ |  |
| Montana (total) | 7.10 |  | 15.10 | -0.30 |  |
| A.G. Becker lst Quartile | 7.70 |  | 13.80 | 2.60 |  |
| A.G. Becker Median | 7.00 |  | 12.80 | 1.50 |  |
| Lehman Brothers Kuhn-Loeb Index** | 7.50 |  | 15.10 | 0.40 |  |
| Salomon Brothers Index*** | 6.90 |  | 15.15 | -0.80 |  |
| Public Employees' Retirement | 7.40 |  | 15.10 | 0.00 |  |
| Teachers' Retirement | 7.30 |  | 14.40 | 0.60 |  |
| Trust \& Legacy | 6.50 |  | 16.20 | -2.50 |  |
| Workers' Compensation | 7.20 |  | 13.90 | 0.90 |  |

*The A.G. Becker sample includes over 3,000 managed funds throughout the country. The sample is ranked by performance results. For example, the lst quartile figures are the minimum return generated by the top 25 percent of the sample; said differently, 75 percent of all money managers surveyed had returns below this figure.
**This index is comprised of all publicly issued, non-convertible, domestic debt of industrial, utility, and financial issuers. Bonds included have a rating of at least Baa by Moody's or BBB by Standard \& Poor's. In the case of bank bonds, the minimum rating is BBB by Fitch. Debt maturing within one year is omitted. The minimum outstanding par value is $\$ 1,000,000$. Currently, there are 4,172 issues included in the index.
***This index is comprised of all non-convertible industrial and utility bonds which were originally publicly offered with a maturity of 1988 or later, a Standard \& Poor's quality rating of AAA or AA, and an outstanding par value of at least $\$ 25,000,000$. Currently, there are 720 issues in the index.

## FINANCIAL STATEMENTS

## AUDITOR'S OPINION

To the Legislative Audit Committee of the Montana State Legislature:
We have examined the statements of investments managed by the State of Montana Board of Investments, All Funds, Excluding the ShortTerm Investment Pool, as of June 30, 1978 and 1977, and the related statements of investment income and changes in investments managed for the years that ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the investments managed by the State of Montana Board of Investments, All Funds, Excluding the Short-Term Investment Pool, as of June 30, 1978 and 1977, and its investment income and the changes in its investments managed for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Our examination has been made primarily for the purpose of forming the opinion stated in the preceding paragraph. The portfolio information as of June 30, 1978, contained in the supplement to the 1977-1978 Fiscal Year Report of the State of Montana Board of Investments, although not considered necessary for a fair presentation of the aforementioned financial statements, is presented as supplementary information and has been subjected to the audit procedures applied in the examination of the basic financial statements. In our opinion, the portfolio information is fairly stated in all material respects in relation to the basic financial statements, taken as a whole.

ARTHUR ANDERSEN \& CO.
Boise, Idaho
September 21, 1978

STATE OF MONTANA BOARD OF INVESTMENTS ALL FUNDS, EXCLUDING THE SHORT-TERM INVESTMENT POOL

STATEMENT OF INVESTMENTS MANAGED
JUNE 30, 1978 AND 1977

|  | 1978 | 1977 |
| :--- | ---: | ---: |
| Investments managed at book value (current value of |  |  |
| $\$ 588,267,503$ in 1978 and $\$ 540,770,863$ in 1977) (Note 2) | $\$ 625,595,682$ | $\$ 542,638,554$ |
| Dividends and interest receivable | $10,124,068$ | $8,495,357$ |
| Net unamortized deferred losses on bond swaps (Note 2) | $5,397,906$ | $6,453,323$ |
| Interest purchased receivable | 81,966 | $\underline{154,031}$ |
| Total investments managed | $\underline{\$ 641,199,622}$ | $\underline{\$ 557,741,265}$ |

STATE OF MONTANA BOARD OF INVESTMENTS ALL FUNDS, EXCLUDING THE SHORT-TERM INVESTMENT POOL

STATEMENT OF INVESTMENT INCOME
FOR THE YEARS ENDED JUNE 30, 1978 AND 1977


The accompanying notes are an integral part
of these financial statements.

## STATE OF MONTANA BOARD OF INVESTMENTS ALL FUNDS, EXCLUDING THE SHORT-TERM INVESTMENT POOL

## STATEMENT OF CHANGES IN INVESTMENTS MANAGED <br> FOR THE YEARS ENDED JUNE 30, 1978 AND 1977

|  |  | 1978 |  | 1977 |
| :---: | :---: | :---: | :---: | :---: |
| TOTAL INVESTMENTS MANAGED, BEGINNING OF YEAR |  | \$557,741,265 |  | \$477,832,425 |
| Net investment income Income remitted to agencies Accrued income transferred | $\begin{gathered} 42,492,282 \\ (40,863,571) \\ -0- \end{gathered}$ |  | $\begin{gathered} 35,449,997 \\ (33,985,157) \\ 9,648 \end{gathered}$ |  |
| Increase in dividends and interest receivable |  | 1,628,711 |  | 1,474,488 |
| Interest purchased during the year Interest purchased collected during the year | 272,352 <br> 344,417 |  | $\begin{array}{r} 292,719 \\ (299,743) \\ \hline \end{array}$ |  |
| Decrease in interest purchased receivable |  | $(72,065)$ |  | $(7,024)$ |
| Net bond swap losses incurred during the year | 69,179 |  | 75,599 |  |
| Net amortization of deferred bond swap losses | $(1,124,596)$ |  | (1,152,541) |  |
| Decrease in net unamortized deferred losses on bond swaps |  | (1,055,417) |  | $(1,076,942)$ |
| Increase in book value by net amortization of discounts and premiums |  | 727,753 |  | 752,948 |
| Securities purchased Securities sold and matured | $\begin{aligned} & 7,302,654,537 \\ & 7,220,425,162 \\ & \hline \end{aligned}$ |  | $\begin{array}{r} 5,923,750,142 \\ (5,844,984,772) \\ \hline \end{array}$ |  |
| Increase in carrying value of securities purchased |  | 82,229,375 |  | 78,765,370 |
| TOTAL INVESTMENTS MANAGED, END OF YEAR |  | \$641,199,622 |  | \$557,741,265 |

The accompanying notes are an integral part
of these financial statements

# STATE OF MONTANA BOARD OF INVESTMENTS ALL FUNDS, EXCLUDING THE SHORT-TERM INVESTMENT POOL NOTES TO FINANCIAL STATEMENTS <br> JUNE 30, 1978 

## 1. HISTORY AND ORGANIZATION:

The State of Montana Board of Investments (the Board) was created by an act of the Legislature to invest and manage the State of Montana's investment funds on a centralized basis. The investments and the income therefrom are owned by various State of Montana agency funds and managed on their behalf by the Board.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

## Investments

Investments, except mortgages, are presented in the statement of investments managed at original cost adjusted for discount and premium amortization where applicable. Mortgages are presented in the statement of investments managed at par value. Mortgage discounts are recorded in the accounting records of the applicable administrating agencies. Unrealized market loss on investments was $\$ 35,460,488$ in 1978 , and unrealized market gain was $\$ 18,950,522$ in 1977. Current values for publically traded securities are determined primarily by reference to market prices supplied to the Board by various brokerage houses. The investments managed relate principally to investments which will be held to maturity or otherwise disposed of at no significant loss to the fund.

Premiums and discounts are amortized using the straightline method over the life of the securities. An average life of eight years is used for amortization of mortgage discounts.

## Bond Swaps

Bond swaps involve trading one security for another security having the same par value for the purpose of enhancing portfolio content and/or yield. The Board defers gains and losses resulting from bond swaps and amortizes such gains and losses over the shorter of either the remaining life of the bonds sold or the bonds purchased for replacement. As shown in the accompanying financial statements at June 30, 1978 and 1977, the accumulated net unamortized deferred losses on bond swaps aggregated $\$ 5,397,906$ in 1978 , and $\$ 6,453,323$ in 1977 . The net amortization of the deferred losses totaled $\$ 1,124,595$ in 1978 , and $\$ 1,152,541$ in 1977.

## 3. INVESTMENTS NOT CONTROLLED:

Mortgages, buildings, and land, the cost of which are included in investments managed in the accompanying financial statements, are not under direct control of the Board. The agencies administering these assets maintain control and provide the Board with the necessary financial information. Rental income from these buildings and interest income from the mortgages are included in the statement of investment income; however, occupancy and depreciation charges relating to the buildings are not included in the statement of investment income.

The book value of these assets included in investments managed in the accompanying financial statements at June 30, 1978 and 1977 are as follows:

```
Mortgages
Land and Buildings
```

$\frac{1978}{\$ 56,301,77} 3$
1977
$\$ 50,167,756$
317,312

## AUDITOR'S OPINION

To the Legislative Audit Committee of the Montana State Legislature:
We have examined the statements of investments managed by the State of Montana Board of Investments, Short-Term Investment Pool as of June 30, 1978 and 1977, and the related statements of investment income and distributions and changes in investments managed for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the investments managed by the State of Montana Board of Investments, Short-Term Investment Pool, as of June 30, 1978 and 1977, and its investment income and distributions and the changes in its investments managed for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Our examination has been made primarily for the purpose of forming the opinion stated in the preceding paragraph. The portfolio information as of June 30, 1978, contained in the supplement to the 1977-1978 Fiscal Year Report of the State of Montana Board of Investments, although not considered necessary for a fair presentation of the aforementioned financial statements, is presented as supplementary information and has been subjected to the audit procedures applied in the examination of the basic financial statements. In our opinion, the portfolio information is fairly stated in all material respects in relation to the basic financial statements, taken as a whole.
ARTHUR ANDERSEN \& CO.
Boise, Idaho
September 21, 1978

## STATE OF MONTANA BOARD OF INVESTMENTS SHORT-TERM INVESTMENT POOL

STATEMENT OF INVESTMENTS MANAGED
JUNE 30, 1978 AND 1977

Cash
Interest receivable
Investments managed at current value (cost of $\$ 170,717,487$ and $\$ 165,007,735$ respectively) (Note 2)
Total assets
Accrued expenses
Value of units Income due participants

Net asset value

Units outstanding
Unit value
$\qquad$
\$ 14,427 2,733,273
168,415,515 171,163,215 $\frac{(20,401)}{171,12,814}$
$\begin{array}{r}171,142,814 \\ (1,091,227) \\ \hline\end{array}$
\$170,051,587

170,781
\$ 1,002.12

1977
\$ 11,794
2,161,817
$\frac{167,481,198}{169,654,809}$
$\frac{(17,807)}{169,637,002}$
169,637,002
$\frac{(958,692)}{\$ 168,678,310}$
164,699
\$ 1,029.98

The accompanying notes are an integral part
of these financial statements.

## STATE OF MONTANA BOARD OF INVESTMENTS SHORT-TERM INVESTMENT POOL

STATEMENT OF CHANGES IN INVESTMENTS MANAGED FOR THE YEARS ENDED JUNE 30, 1978 AND 1977

|  | 1978 | 1977 |
| :--- | ---: | ---: |
| Net asset value, beginning of year | $\$ 168,678,310$ | $\$ 166,086,163$ |
| Units purchased by participants | $61,494,093$ | $71,392,958$ |
| Changes in current value of investments managed | $(4,775,434)$ | $1,202,234$ |
| Units sold by participants | $\underline{(55,345,382)}$ | $\underline{(70,003,045)}$ |
| Net asset value, end of year | $\underline{\$ 168,051,587}$ |  |

of these financial statements.

## STATE OF MONTANA BOARD OF INVESTMENTS SHORT-TERM INVESTMENT POOL

## STATEMENT OF INVESTMENT INCOME AND DISTRIBUTIONS FOR THE YEARS ENDED JUNE 30, 1978 AND 1977

|  | 1978 | 1977 |
| :---: | :---: | :---: |
| Interest income | \$ 12,384,874 | \$ 11,502,634 |
| Realized gain on sale of investments | 31,744 | 178,618 |
| Income before administrative expenses | 12,416,618 | 11,681,252 |
| Administrative expenses (Note 2) | $(216,548)$ | $(214,899)$ |
| Net income | 12,200,070 | 11,466,353 |
| Income purchased by participants | 951,632 | 1,174,207 |
| Income due participants, beginning of year | 958,692 | 1,061,319 |
| Income available for distribution | 14,110,394 | 13,701,879 |
| Income distributed on units sold (Note 2) | 1,013,153 | 1,196,889 |
| November distribution (Note 2) | 5,841,627 | 5,916,930 |
| May distribution (Note 2) | 6,164,387 | 5,629,368 |
| Total distributions | 13,019,167 | 12,743,187 |
| Income due participants, end of year | \$ 1,091,227 | \$ 958,692 |

The accompanying notes are an integral part
of these financial statements.

## STATE OF MONTANA BOARD OF INVESTMENTS SHORT-TERM INVESTMENT POOL NOTES TO FINANCIAL STATEMENTS JUNE 30, 1978

## 1. HISTORY AND ORGANIZATION:

The State of Montana Board of Investments (Board) was created by an act of the Legislature to invest and manage the State of Montana's investment funds on a centralized basis. The Short-Term Investment Pool (STIP) provides a short-term investment vehicle to participants (state and local governmental units) with a relatively small amount to invest. Investment in STIP affords the participant liquidity and a return on their investment. The investments and the income of STIP are owned by the participants as they purchase units and are managed on their behalf by the Board.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

## Administrative Expenses

Administrative expenses incurred by the Board are charged to STIP daily based on the Board's expenses applicable to STIP.

## Income Distribution

The value of units purchased or sold includes a daily computation of net asset value and income and therefore, income to point of sale is included in proceeds to the seller. Cash distributions of income are made to continuing participants on the last working day in the months of May and November. The amounts shown for units purchased and sold by participants are net of income purchased and income sold, respectively.

## Investments

Investments are presented in the statement of investments managed at current market value. Gains and losses on bond swaps are accounted for on the completed transaction method and are therefore currently included in income. Current values for publically traded securities are determined primarily by reference to market prices supplied to the Board by various brokerage houses.

## SCHEDULE A

## SOURCE OF INVESTMENTS

| Other Retirement Funds: | 1976-1977 | 1977-1978 |
| :---: | :---: | :---: |
| Highway Patrol Retirement Fund | \$ 4,075,317 | \$ 4,847,596 |
| Statewide Police Reserve Fund | 3,769,023 | 3,901,891 |
| Sheriffs' Retirement Fund | 2,961,357 | 3,793,720 |
| Game Wardens' Retirement Fund | 1,951,672 | 2,173,693 |
| Montana Judges' Retirement Fund | 1,647,816 | 2,043,115 |
| TOTAL | \$ 14,405,185 | \$ 16,760,015 |
| Various University Funds: | 1976-1977 | 1977-1978 |
| Montana State University | \$ 5,674,701 | \$ 5,051,842 |
| University of Montana | 1,568,094 | 2,039,879 |
| Montana Tech | 675,519 | 665,180 |
| Eastern Montana College | 559,952 | 583,488 |
| Western Montana College | -0- | 274,106 |
| Northern Montana College | 137,182 | 233,136 |
| TOTAL | \$ 8,615,448 | \$ 8,847,631 |
| Other Funds: | 1976-1977 | 1977-1978 |
| Trust Contractors' License Refund Fund | \$ 4,598,436 | \$ 5,703,916 |
| Local Impact Fund | 6,394,254 | 3,893,859 |
| Agency Insurance Fund | -0- | 3,440,579 |
| Hail Insurance Fund | 2,248,976 | 2,840,988 |
| Volunteer Fireman's Fund | 1,686,550 | 1,845,282 |
| Woodville Highway Replacement Fund | -0- | 1,840,430 |
| Subsequent Injury Fund | 1,370,862 | 1,807,564 |
| Highway Complex Sinking Fund | 727,736 | 1,218,884 |
| Coal Tax Park Acquisition Fund | 757,615 | 1,173,486 |
| Land \& Resource Development Fund | 825,351 | 927,814 |
| Highway Complex Headquarters Fund | 3,901,280 | 764,577 |
| Montana Rural Rehabilitation Fund | 328,350 | 424,831 |
| Flood Insurance Fund | -0- | 249,172 |
| Wheat Research \& Marketing Fund | 176,860 | 221,260 |
| Agriculture-Grain Services Fund | -0- | 212,181 |
| Livestock-Inspection \& Control Fund | 71,330 | 173,575 |
| Board of Oil \& Gas Fund | 47,957 | 145,760 |


| Agriculture-Commercial Feed ERA Fund | $-0-$ | 115,711 |
| :--- | ---: | ---: |
| Foster Children Fund | $-0-$ | 89,273 |
| Donable Property Fund | 83,370 | 83,370 |
| Uninsured Employer' Fund | $-0-$ | 72,434 |
| Livestock-Animal Health ERA Fund | $-0-$ | 60,523 |
| Agriculture-Commercial Feed ERA Fund | $-0-$ | 52,637 |
| Livestock Commission-Emergency Fund | 32,473 | 42,731 |
| Water \& Waste Water Operators' Fund | 16,160 | 16,213 |
| Renewable Resources Fund | $1,124,495$ | $-0-$ |
| Occupational Disease Fund | 53,502 | $-0-$ |
| Water Well Fund | 8,000 | $-0-$ |
| TOTAL | $\underline{\$ 24,453,557}$ | $\$ 27,417,050$ |
|  |  |  |
|  |  |  |
| Other STIP*: | $\underline{1976-1977}$ | $\underline{1977-1978}$ |
| County Funds | $\$ 10,759,154$ | $\$ 12,545,321$ |
| City Funds | $5,014,535$ | $6,821,803$ |
| Fire Department Relief Associations | $3,550,210$ | $3,805,083$ |
| School Funds | 8,134 |  |
| TO'TAL | $\underline{\$ 19,332,033}$ | $\$ 23,181,364$ |

*County and city funds not under the control of the State of Montana.

## SCHEDULE B

## TYPE OF INVESTMENTS

## OTHER

Statewide Police Reserve Fund: City of Havre City Hall Bonds PERS:
ESC Building Revenue Bond
Building and Land
TRS:
Building and Land
TOTAL

1976-1977
1977-1978

| $\$$ | 50,000 | $\$$ | 50,000 |
| ---: | ---: | ---: | ---: |
| $1,096,787$ |  | $1,008,260$ |  |
|  | 151,189 |  | 146,369 |
|  | 166,124 |  | 162,161 |
|  | $1,464,100$ | $\$ 1,366,790$ |  |

## SCHEDULE C INVESTMENT INCOME 1977-78 FISCAL YEAR

Public Employees' Retirement System Fund Treasurer's Fund
Teachers' Retirement System Fund
Trust \& Legacy Fund
Workers' Compensation Fund
Resource Indemnity Fund
Social Security Fund
Common School Interest \& Income Fund
Long Range Building Fund
Educational Trust Fund
Highway Patrol Retirement Fund
Trust Contractors' License Refund
Statewide Police Reserve Fund
Local Impact Fund
Sheriffs' Retirement Fund
Montana State University
Long Range Building Sinking Fund
Hail Insurance Fund
Permanent Coal Trust Fund
Agency Insurance Fund
Game Wardens' Retirement Fund
Montana Judges' Retirement Fund
Volunteer Fireman's Fund
Highway Complex Headquarters Fund
Subsequent Injury Fund
University of Montana
Federal Revenue Sharing, Cap. Const. Fund
Highway Building Complex Sinking Fund
Coal Tax Park Acquisition Fund
Renewable Resources Fund
Lands \& Resource Development Fund
lontana Tech
W oodville Highway Replacement Fund
Eastern Montana College
Montana Rural Rehab. Fund
Vorthern Montana College
William Murphy Fund
Wheat Research \& Marketing Fund
Livestock Commission-Inspection \& Control
Western Montana College
Flood Insurance Fund
Agriculture-Grain Services Fund
Deaf \& Blind Bequest Fund

\$ 13,152,720 $3,200,497$ 10,598,990 6,161,482
 680,617 680,617
605,964 405,046

29,918

## 336,904

280,429
292,337
254,052
26,874
26,874
217835
39,241

## 66,790

145,838

## 132,76

122,814
6,632

60,957
17,91

698
14,067
CURRENT
AMORTI-
ZATION,

## EFERRED

GAIN or
(LOSS)
$(24,341)$ \$
$(16,678)$
$(996,273)$
$(80,406)$


NET INCOME
\$ 13,520,389 10,827,779 11,098,439
5,902,955
350,577
754,068
629,675
583,694
582,269
435,938
356,529
316,841
312,029
297,530
279,189
275,786
230,185
181,992
177,366
171,404
155,364
144,690
137,737
137,403
125,110
76,731
71,063
67,614
54,698
42,605
41,845
36,061
16,476
15,109
13,657
12,003
11,602
10,442
10,105
6,547

## SCHEDULE C (continued)

|  |  | CASH |  | URRENT AMORTIZATION | NET DEFERRED GAIN or (LOSS) |  | STIP <br> INCOME |  | MODIFIED INCOME |  | ACCRUED INCOME |  | $\begin{array}{r} \text { NET } \\ \text { INCOME } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Donable Property Fund |  |  |  |  |  |  | 5,906 |  | 5,906 |  | 30 |  | 5,936 |
| Board of Oil \& Gas Fund |  |  |  |  |  |  | 4,954 |  | 4,954 |  | 617 |  | 5,571 |
| Agriculture-Commercial Feed ERA Fund |  |  |  |  |  |  | 4,740 |  | 4,740 |  | 705 |  | 5,445 |
| Foster Children Fund |  |  |  |  |  |  | 3,208 |  | 3,208 |  | 544 |  | 3,752 |
| Livestock Commission-Animal Health Emerg. Fund |  |  |  |  |  |  | 3,182 |  | 3,182 |  | 73 |  | 3,255 |
| Dixon Endowment Fund |  | 3,830 |  |  |  |  |  |  | 3,830 |  | (960) |  | 2,870 |
| Livestock Commission-Animal Health ERA Fund |  |  |  |  |  |  | 2,282 |  | 2,282 |  | 371 |  | 2,653 |
| Agriculture-Commercial Fertilizer Fund |  |  |  |  |  |  | 1,560 |  | 1,560 |  | 321 |  | 1,881 |
| T.R.S. Minnie Fullam Fund |  | 1,204 |  | 11 |  |  | 120 |  | 1,335 |  | 43 |  | 1,378 |
| Water \& Waste Water Operators' Fund |  |  |  |  |  |  | 1,267 |  | 1,267 |  | 6 |  | 1,273 |
| Uninsured Employers' Fund |  |  |  |  |  |  | 839 |  | 839 |  | 354 |  | 1,193 |
| Occupational Disease Fund |  |  |  |  |  |  | 257 |  | 257 |  | (116) |  | 141 |
| Water Well Fund |  | 309 |  |  |  |  |  |  | 309 |  | (233) |  | 76 |
| Other STIP |  |  |  |  |  |  | 1,508,193 |  | 1,508,193 |  | 32,074 |  | 1,540,267 |
| TOTAL |  | 41,260,412 | \$ | 727,753 | \$ (1,124,595) | \$ | 11,708,689 |  | 52,572,259 | \$ | 1,704,616 |  | \$ 54,276,875 |

## SCHEDULE D

## SUMMARY OF BOND SWAPS

 FOR FISCAL YEAR 1977-78|  |  | PAR | PAR | REALIZED | DEFERRED |
| :--- | ---: | ---: | ---: | ---: | ---: |
| FUND: | SOLD | ACQUIRED | GAIN or (LOSS) | GAIN Or (LOSS) |  |

(1) If the completed transaction method were used for gains and losses on bond swaps.
(2) Based on the deferral method of accounting for gains and losses on bond swaps.

## SCHEDULE E

UNAMORTIZED DEFERRED GAINS or (LOSSES) ON BOND SWAPS As of June 30, 1978

## FUND:

Trust \& Legacy Fund
Workers' Compensation Fund
Teachers' Retirement System Fund
Public Employees' Retirement System Fund
Highway Patrol Retirement Fund
Game Wardens' Retirement Fund
Volunteer Fireman's Fund
Montana Judges' Retirement Fund
TOTAL

BALANCE
\$ $(4,469,135)$
$(469,979)$
$(127,944)$
$(274,653)$
$(49,277)$
$(5,239)$
(1,744)
65
$\$(5,397,906)$

## STATE OF MONTANA BOARD OF INVESTMENTS GENERAL FOOTNOTES

## Total Investments

The total STIP investments as included in the graphs, Type of Investments and Total Investments at Cost differs from the STIP investments as included in the graph Source of Investments by the amount of $\$ 1,835,108$. The first two graphs show the Board's original cost of the S'TIP portfolio while the latter graph shows the participant's cost of the STIP units. STIP units are sold to the participants at the current market value of the STIP portfolio plus any accrued earnings as of the date the participants joined the investment pool.

## Portfolio Yield

The yields for the Treasurer's Fund and STIP are calculated by determining the daily average invested balances and dividing this into net income for the fiscal year. All other portfolio yields are calculated as follows: two times net income divided by the beginning and ending asset balances less net income.

## Modified Income

The graph Investment Income has been prepared on the modified income basis for comparison purposes. Modified income is cash income adjusted for the amortization of premiums and accrual of discounts and the deferral of gains or losses on bond swaps. The difference bet ween modified income and net income on the accrual basis is $\$ 1,704,616$ for fiscal 77.78 as shown in Schedule C.

